

## CLAIMS

1. A polynucleotide comprising the nucleotides of SEQ ID No. 1.
2. A recombinant expression vector containing the polynucleotide of Claim 1.
3. A peptide comprising the amino acids of SEQ ID No. 2.
4. A pharmaceutical composition comprising the peptide of Claim 3.
5. Monoclonal antibodies having binding specificity for the peptide of Claim 3.
6. Polyclonal antibodies having binding specificity for the peptide of Claim 3.
7. A polynucleotide comprising the nucleotides of SEQ ID No. 3.
8. A recombinant expression vector containing the polynucleotide of Claim 7.
9. A peptide encoded by the polynucleotide of Claim 7.
10. A pharmaceutical composition comprising the peptide of Claim 9.
11. A polynucleotide comprising the nucleotides of SEQ ID No. 6.
12. A recombinant expression vector containing the polynucleotide of Claim 11.
13. A pharmaceutical composition comprising the peptide of Claim 12.
14. Monoclonal antibodies having binding specificity for the peptide of Claim 12.

13. Polyclonal antibodies having binding specificity for the peptide of Claim 12.
16. A polynucleotide comprising the nucleotides of SEQ ID No: 7.
- 5 17. A recombinant expression vector containing the polynucleotide of Claim 16.
18. A peptide encoded by the polynucleotide of Claim 16.
- 10 19. A pharmaceutical composition comprising the peptide of Claim 18.
20. Monoclonal antibodies having binding specificity for the peptide of Claim 18.
21. Polyclonal antibodies having binding specificity for the peptide of Claim 18.
- 15 22. A method for suppressing abnormally hyperactive BMP-4 signalling in a vertebrate host comprising administering a therapeutically effective dosage of the peptide of Claim 3 to the host.
- 20 23. A method for suppressing abnormally hyperactive BMP-4 signalling in a vertebrate host comprising administering a therapeutically effective dosage of the peptide of Claim 9 to the host.
- 25 24. A method for suppressing abnormally hyperactive BMP-4 signalling in a vertebrate host comprising administering a therapeutically effective dosage of the peptide of Claim 12 to the host.
- 30 25. A method for suppressing abnormally hyperactive BMP-4 signalling in a vertebrate host comprising administering a therapeutically effective dosage of the peptide of Claim 13 to the host.

26. A method for detecting Super-Sog-like activity in a host comprising measuring the level of Super-Sog or a Super-Sog homologue in a host tissue.